D C B W E B P A G E T E A M

Working Paper #7:
Draft Implementation Plan

by J.D. McMinn

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Core Team

Tracy Jones

Dana McMinn

Marty Waszak

Support Team

Scott Dorsey

Bruce Jackson

IMPLEMENTATION PLAN

This paper tries to outline the areas /issues that will need to be addressed to set up and maintain a continuously improving web site. Pardon the shotgun, stream of consciousness approach....

Server Selection

It is the opinion of the team that a stand alone server be acquired to minimize the possibility of a breach in computer security and minimize conflict between research tools and web support (I can imagine there will be a battle over disk space). This machine should be capable of being maintained through a Macintosh interface (develop the site on a Mac and then transfer it to the host). The server should be commercial (supported) software and offer state of the art functions (forms, image maps, database searching, etc.) The actual selection of a server should be made by more cognizant individuals in the branch.

Content

The primary resource to be found at the DCB site will likely be research related (working papers, highlights, scripts, programs, models, etc.) To ask a single person, or even a select few, to manage that type of content for the whole branch is asking too much. Each researcher will have to be responsible for generating content for the web site. Any content relating to a person in DCB should be accessible from his/her personal web page. Therefore if it were required that everyone was to maintain (and update regularly) their web page,

and distribute more detailed content to managers of other pages the web site would grow in a cross linked manner.

For example, a model is developed in support of a particular research project. Somewhere on the developers homepage mention of this model would be made. This link would take the reader to the appropriate research area where there are links to related models / documents as organized by the manager of that page (perhaps a Level III type).

A secondary class of content to be available on the web is branch descriptive information (people, facilities, org charts etc.). The pages describing individuals ought to be maintained by those individuals. The other information, which may not change much over time, should be maintained by the branch office.

The third class of information which might be available at the site is internal operational information (T&A's, Forms, stock logs, 1192c library holdings, etc.). This information should be only available from machines located in 1192c/DCB.

Submission of Content

It is recommended that the content for the site be submittible in a variety of ways:

-- MS Word, Power point, Excel files (application files)
--Through an automated GUI form over the web
--in PDF form
-- (others)

Accepted content should then be placed on the site by the reviewing official. One (or two, depending on demand) copies of a homepage development tool should be accesible from a public mac for posting content on the web.

Style & Structure

In order to provide the reader with a sense of orientation and easy navigation within the web site it is recommended that DCB adopt and follow a standard style guide such as ..... (the following was stolen from the web - I forgot where)

> Site Content
>
> People will visit your site if you have real "content" -- information, discussion, narrative, ideas. Focus your site around it. Continuously changing content also encourages return visits.
>
> Provide clues to the dynamic nature of your content. Much information you'll see on the web is static. It changes seldom, if at all, after it's written. Some however is intended to be updated

over time, possibly frequently. Give your users clues about that information will be updated, especially if you're mixing static and dynamic data.

Page Length

Only making a document as long as it needs to be. If a document can be logically decomposed into more then one file, do so, but only decompose a document if the narrative branches from the linear structure of the current document. An example of this is breaking a book-length work up into chapters, and further breaking those chapters up into sections.

Pare down your text. One of the more interesting results from our usability tests is that people sometimes do not like to read web pages. Often, your audience will skim your text, only reading the text of the hypertext links before they choose their next destination. The pages that seem be the most successful are those that use a "bursty" style. Short, factual, well-written, prose with interesting links seems to attract the biggest audience.

Horizontal bars to divide up content into more digestible chunks. They facilitate page scanning and help users find the information they are interested in faster.

Cross-Reference

Correspondingly, make sure a document is richly cross-referenced, so that if readers ask, "Why?", they can find the answer. Do not put in so many links that the reader gets lost trying to follow them all.

Page Title

Choose the HTML title to reflect the textual page title. Meaningful titles save your readers time when your Web pages are included in a hotlist or search result list.

Headers and footers

A standard site-wide graphical banner or text-based header can be used to easily identify the site or sponsoring organization. Your header doesn't necessarily need to be static across the site; you can easily share dimensions and a primary graphic element across banners while making each one relate specifically to the content at hand.

Footers can be used in the same way; a standard method to sign documents and/or a standard text-based or graphical menu bar can easily pull a site together, not only as a design element, but also as an easy way to always navigate to the table of contents or index of a site.

In addition, it can often be hard to tell how current and accurate information found online is, or how actively it is maintained and updated. One thing which you can do to assist Web users is to sign and date all documents, so that people viewing the documents can form some impression of the authority of the document (i.e., how recent it is, and how reliable the information provider is).

Personality and style

Beyond images and design elements, sites come together because of personality and style. A consistent feel or attitude for a site, conveyed across textual and graphic elements, can not only make each piece feel as if it's part of a larger whole, it can also attract readers who share the same attitude or outlook (or are fascinated by yours). The best sites on the Web aren't necessarily the most polished, but those that pull readers back again and again not only because of informational content but also because of the voice with which that content is presented.

Help

Provides an easily accessible source of information should the user run into problems. Put a link leading to a comment mechanism on every page. On-line manuals and help pages empower users to find the solutions to their problems. Give information on how to contact by different means: email, phone, or in person.

Necessary Items

The essential items that should appear on every WWW page are:

* Author or contact person.
* Link to local home page.
* Institution (if applicable).
* Date of creation or revision.
* Statement of copyright.

Other very useful items that should be included in every

well-designed Web page include:

* The URL of the document.
* Links to other related pages in the local Web site.
* Logo or seal of the institution.
* Button bars or other navigation aides.

Graphics

"Suffer not from Photoshop envy" by keeping the layout simple, using "Shaker design". Whisper, don't shout. Examples of poor designs include lots of "web awards" -- the eye is distracted by many irregular shapes and colors. Spent the money to get quality graphics. No one wants to look at an ugly page. It's hard to see a computer screen if you're wincing at the same time.

Avoid excessive graphics and large multimedia objects. A good example is a "large talking head" QuickTime video which wastes bandwidth and contributes little. Linked thumbnails are a better choice for large images. Don't overuse wallpaper, keep in mind that it slows down transmission

"Predictability is next to godliness." Things that look like a button should be a button. Things that look like an image map should be an image map.

Add some alternate text to every image, even if it's just the empty string. Add text alternatives to image maps. Saves time for those using slower connections while still allowing them access to your site.

Tasteful, small, but frequent use of your logo is an idea borrowed from television, it translates well to the World Wide Web

Alternatives to HTML

For some technical documents within an intranet, providing the source documents in their "native" format is often easier and more cost effective than converting them to HTML. On the same note, if a document is intended for printing, Adobe Acrobat may be a better option over HTML.

Flat Structure

A web page is not a paper page, so don't design it for paper. The evolving metaphor for a "page" is a control panel, making things

horizontal rather than vertical with a consistent layout. Minimize clicks between questions and answers by limiting it to no more the 3 or 4. People stop after a while and give up.

Home Page

The purpose of a home (welcome) page is to get someone off it -- and onto the appropriate page containing the information.

Web page oversight

Since posting material on the web is a form of public release of information with an implied NASA endorsement (even if it is labeled as 'use at your own risk') there must be some review process for material posted to the web. A mechanism for this might be as mentioned above (in Content). If the technical material is not actually posted by the author on his/her page but by another on their page, it seems natural for that person to be the reviewing official.

Each page must have a responsible person whose name and email appear at the bottom of the page(this is a Style element). Even with this mechanism there still must be an overall web content master whose responsibility it is to review the web content carefully and regularly.

Also there should be a web manager who looks for broken links and dated material.

Web operator

A person or group will have to step forward to fill the role of hardware / software operator on the web server. This job would entail maintaining up-to-date software, performing server upgrades, managing disk space etc.....